

A NAVISTAR COMPANY

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DEPT. OF TRANSPORTATION  
DOCKETS

DEC 18 A 9 19

Administrator  
National Highway Traffic Safety Administrator  
1200 New Jersey Avenue SE  
Washington, DC 20590

December 4, 2008

**Reference: Final Rule  
Petition for Reconsideration  
Docket No. NHTSA-2008-0163  
Federal Motor Vehicle Standards; Seating Systems, Occupant Crash  
Protection, Seat Belt Assembly Anchorages, School Bus Passenger  
Seating and Crash Protection  
October 21, 2008**

Dear Administrator,

IC Bus, LLC, an affiliate of Navistar International Corporation and the nation's largest integrated manufacturer of school buses, appreciates the opportunity to file this Petition for Reconsideration for this very important rule. We support NHTSA's efforts in defining the occupant protection systems for school buses and commend NHTSA for recognizing the need and benefits in Flexible Seating and allowing more lead time for the large school bus compliance in the Final Rule. However we were disappointed that NHTSA did not adjust the FMVSS 210 Seat Belt Assembly Anchorage requirements for large school buses (school buses with a GVWR greater than 10,000 lbs.), given their research and test data supports such a change. This Petition for Reconsideration addresses this issue.

### FMVSS 210 Strength Requirements

NHTSA proposed in the NPRM that large school buses, with voluntarily installed lap/shoulder seat belts, be required to meet the same FMVSS 210 seat belt anchorage strength requirements as small buses, even though the agency recognizes that large school buses experience lower crash forces than small buses. In developing the requirements for FMVSS 222, NHTSA states "Its requirements for school buses with GVWR's of 10,000 lbs. or less (small school buses) differ from those for buses with GVWR's greater than 10,000 lbs. (large school buses), because the

“crash pulse” or deceleration experienced by the small school buses is typically more severe than that of the large buses in similar collisions.” NHTSA’s testing and analysis suggest that a more appropriate strength requirement for large buses would be 2/3 of the small bus requirement and explains the reasons for this in the NPRM.

NHTSA did additional testing after the NPRM was issued and concluded:

“Based on data from the post-NPRM testing, the assumption that the large school bus pulse generates about 67% of the FMVSS No. 210 force still appears to be valid, assuming a two belted seating position. Assuming three belted positions, the same peak dynamic load generates 44% of the FMVSS No. 210 force.”

As stated in our response to the NPRM, IC Bus, LLC believed that the FMVSS 210 strength requirements should be based on engineering analysis and testing and request the seat belt anchorage strength requirement for large school buses be changed to 2/3 of the small bus requirement for both Type 1 and Type 2 restraint systems. The reasons that IC Bus, LLC continues to believe that this change should be made are as follows:

**NHTSA should not set performance requirements based on how they think manufacturers can build the most cost effective seat.** NHTSA, in part, justified keeping the full FMVSS 210 strength requirements because they felt it may be desirable and cost effective in some cases to use the same design for both small and large buses. This certainly may not be the case as some manufacturers, like IC Bus, LLC, build only large school buses and could specifically develop a seating system that effectively protects the occupant and is more cost effective than the seat for a small school bus. Manufacturers will still have the option to build a seat or seating system that can be used for both small and large school buses if they so desire and see a benefit in doing so. The performance requirements should be set at a level that provides the necessary protection.

**Any additional cost of a school bus because of the higher performance requirements for the restraints can have a potential negative impact on safety.** NHTSA is correct to be concerned about the added cost of the restraint system on school buses. As stated by NHTSA and many others, increasing the cost of a school bus is of concern as limited funds are available to most school districts. This could not only mean the school districts purchase fewer buses with restraints, but any additional funds spent on school bus restraints can have an adverse safety impact as stated in the Final Rule; “The net effect of safety could be negative if the costs of purchasing and maintaining the seat belts and ensuring their correct use results in non-implementation or reduced efficacy of other pupil transportation programs that affect child safety”. Setting the FMVSS 210 performance requirement higher than necessary to ensure the protection of the occupants will inherently drive up the cost of a vehicle equipped with restraints.

At this time it is difficult to accurately estimate the potential cost savings that would be associated with seating systems that meet 2/3 of the current FMVSS 210 requirement because such seating systems are not currently designed or available. However, in speaking with current seat suppliers, we believe the cost savings to be in the range of \$ 10 – 15 per seat. This would equate to an estimated cost savings to the school district of \$ 220-330 for the typical Class C, 66 passenger school bus. This certainly is not confirmed because as stated before, a ‘two-thirds load seat’ has not been developed as of yet.

**Establishing a higher than necessary strength requirement does not ensure increased protection.** NHTSA indicates that one of the main reasons for keeping the full FMVSS 210 strength requirements is to provide a “safety margin” in the regulation for large school buses. It is NHTSA’s responsibility to develop regulations based on sound science, research and analysis in a way that protects the vehicle occupants against unreasonable risk of death or injury in an accident. NHTSA’s own research and analysis states that a FMVSS 210 loading requirement that is 2/3 of the current FMVSS 210 levels provides the necessary protection for large school bus occupants.

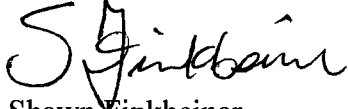
Most, if not all manufacturers, test to load requirements significantly higher than those specified in FMVSS 210 to ensure that all vehicles, under all conditions, comply with the regulated requirements. As NHTSA is aware, the vehicle manufacturer must ensure that every vehicle complies with the regulations. So in essence the “safety margin” that NHTSA has built into the regulation is compounded by the vehicle manufacturer’s safety margin.

**The loading requirements for a flex seat, that has a seating position designed for Small Occupant (an average 10 year old), should not be required to meet the same loading requirements as the current FMVSS 210.** For the same reasons as previously stated, there is no justification for making the small occupant seating position loading requirement the same as the current FMVSS 210 requirement. These seating positions are specifically designed for these younger children and it is very unlikely that they will or can be used by larger occupants. We believe that NHTSA should set the load requirements for small occupant positions based on the 95 percentile weight of a 10 year old multiplied by the measured pulse deceleration rate which we believe to be 13.5g.

**NHTSA should reconsider defining a large school bus as a school bus with a GVWR of greater than 16,000 lbs. for FMVSS 210.** IC Bus, LLC agrees with comments received in response to the NPRM that there can be similarities between school buses with a less than 10,000 lbs. GVWR and school buses that are slightly greater than 10,000 lbs GVWR. School buses with a GVWR of less than 16,000 lbs. are most often based on a passenger or light truck vehicle. School buses with a GVWR greater than 16,000 lbs. are most often an integrated vehicle designed specifically for that application and components and systems are usually similar to medium and heavy duty trucks. So there is a distinctive difference between school buses with a greater than 16,000 lbs. GVWR from those with a less than or equal to 16,000 lbs. GVWR. If NHTSA is not inclined to lower the FMVSS 210 strength requirement for school buses greater than 10,000 lbs. GVWR, then we petition NHTSA to recognize the distinctive difference for school buses with a greater than 16,000 lbs. GVWR and change the requirement for school buses with a greater than 16,000 lbs. GVWR to 2/3 of the current FMVSS 210 strength requirement for the restraint anchorage. (Refer to Attachments A and B)

In closing we hope the Agency promptly considers this petition. Please contact me if you need clarification or any additional information.

Sincerely

A handwritten signature in black ink, appearing to read "S. Finkbeiner". The signature is fluid and cursive, with a large initial "S" and a stylized "Finkbeiner".

Shawn Finkbeiner

Manager

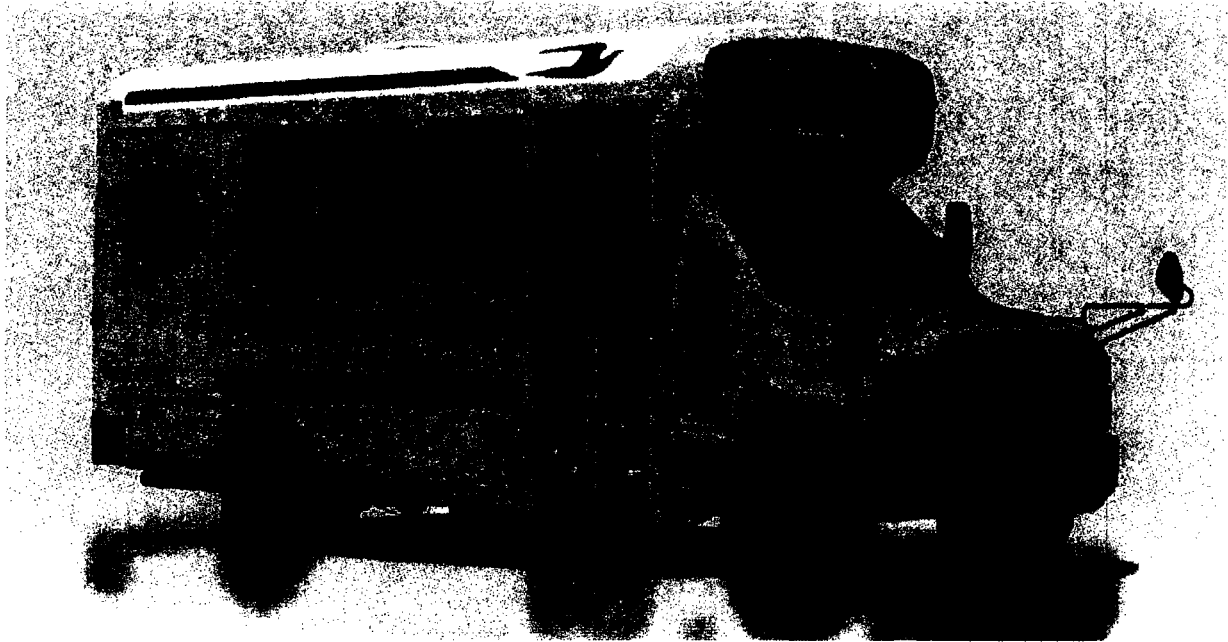
Product Integrity and Regulatory Compliance

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**Attachment A**  
**School Buses with GVWR > 10,000 but < 16,000 lbs. GVWR**



**Attachment B**  
**School Buses with GVWR > 16,000 lbs. GVWR**

